

# PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference HMJ03752WO	<b>FOR FURTHER ACTION</b>		see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/GB2004/005390	International filing date (day/month/year) 22/12/2004	(Earliest) Priority Date (day/month/year) 23/12/2003	
Applicant  SCHOOL OF PHARMACY, UNIVERSITY OF LONDON			

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

### 1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of the International application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the International application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box II).

3. ☐ **Unity of invention is lacking** (see Box III).

4. With regard to the **title**,

☐ the text is approved as submitted by the applicant.

☒ the text has been established by this Authority to read as follows:

ANTHARQUINONE COMPOUNDS AS ANTI CANCER COMPOUNDS

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. \_\_\_\_\_

☐ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☒ none of the figures is to be published with the abstract.

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07D207/06 C07D211/22 C07D211/46 C07D207/12 C07D207/08  
 C07D211/18 C07D211/38 C07D207/10 C07D207/46 C07D211/94  
 A61K31/445 A61P35/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07D A61K A61P

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>COLLIER D A ET AL: "SYNTHESIS, MOLECULAR MODELING, DNA BINDING, AND ANTITUMOR PROPERTIES OF SOME SUBSTITUTED AMIDOANTHRAQUINONES"</p> <p>JOURNAL OF MEDICINAL CHEMISTRY, AMERICAN CHEMICAL SOCIETY, WASHINGTON, US, vol. 31, no. 4, 1988, pages 847-857, XP002063827</p> <p>ISSN: 0022-2623</p> <p>Compounds 4,5,8,9</p> <p>page 850, right hand column - page 851</p> <p>left hand column: "The two compounds ...with compound 8 showing the highest values"</p> <p>table 10</p> <p style="text-align: center;">----- -/--</p>	1-29

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents:

\*A\* document defining the general state of the art which is not considered to be of particular relevance

\*E\* earlier document but published on or after the international filing date

\*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

\*O\* document referring to an oral disclosure, use, exhibition or other means

\*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*Z\* document member of the same patent family

Date of the actual completion of the international search

30 March 2005

Date of mailing of the international search report

11/04/2005

Name and mailing address of the ISA

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	AGBANDJE M ET AL: "ANTHRACENE-9,10-DIONES AS POTENTIAL ANTICANCER AGENTS. SYNTHESIS, DNA-DINDING, AND BIOLOGICAL STUDIES ON A SERIES OF 2,6DISUBSTITUTED DERIVATIVES" JOURNAL OF MEDICINAL CHEMISTRY, AMERICAN CHEMICAL SOCIETY. WASHINGTON, US, vol. 35, no. 8, 1992, pages 1418-1429, XP002063825 ISSN: 0022-2623 compounds 13-16 page 1420, left hand column: "There is a clear correlation ... lowest IC50 of the group" -----	1-29
X	WO 91/05824 A (NAT RES DEV) 2 May 1991 (1991-05-02) cited in the application the whole document -----	1-29
A	AUGUSTYNS K J L ET AL: "Pyrrolidides:synthesis and structure-activITy relationship as inhibitors of DIPEPTIDYL PEPTIDASE IV" EUROPEAN JOURNAL OF MEDICINAL CHEMISTRY, EDITIONS SCIENTIFIQUE ELSEVIER, PARIS, FR, vol. 32, 1997, pages 301-309, XP002258186 ISSN: 0223-5234 compound 19b -----	30,36

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9105824	A	02-05-1991	AT 101181 T	15-02-1994
			AU 634125 B2	11-02-1993
			AU 6539590 A	16-05-1991
			CA 2038934 A1	14-04-1991
			DE 69006482 D1	17-03-1994
			DE 69006482 T2	11-05-1994
			DK 450021 T3	07-03-1994
			EP 0450021 A1	09-10-1991
			ES 2062558 T3	16-12-1994
			WO 9105824 A1	02-05-1991
			GB 2237283 A , B	01-05-1991
			JP 2854971 B2	10-02-1999
			JP 4502166 T	16-04-1992
			NZ 235658 A	23-12-1992
			PT 95584 A , B	13-09-1991
			US 5132327 A	21-07-1992
			ZA 9008178 A	24-06-1992